

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1-9 are pending. Claims 1-4 are amended and claims 5-9 are added. Support for the amended subject matter can be found, for example, on page 4, lines 9-11, page 5, lines 1-3 and 6-11, and page 6, lines 13-16 of the disclosure.

In numbered paragraph 2 on page 2 of the Office Action, claims 1-4 stand rejected under 35 U.S.C. §102(b) as anticipated by *Flach et al* (U.S. Patent No. 5,748,103). Applicants respectfully traverse this rejection.

As shown in Figure 1, exemplary embodiments are directed to a system that includes a plurality of nodes (S.1-S.n) in a base station. Each node includes at least one of a sensor and an actuator that wirelessly communicate with the base station. The base station receives the sensor and actuator signals as uplink signals, and transmits downlink signals, which comprise control signals, to activate/deactivate the actuators and/or sensors. The wireless communication between the base station and the sensors/actuators is achieved through a time division multiple access (TDMA) protocol. The uplink signals are transmitted from the plurality of sensors/actuators at the same time and on at least two different frequencies during an uplink time slot. The downlink signals are transmitted from at least two sensors/actuators using only a single frequency during each downlink time slot.

Applicants' claims 1 and 4 broadly encompass the aforementioned features by reciting among other elements, that uplink signals can be transmitted from different nodes to a base station simultaneously on at least two different frequencies and that downlink signals can be transmitted from the base station to different nodes on only one frequency that differs from the uplink frequencies.

The *Flach* patent fails to disclose or suggest that uplink signals can be transmitted from different nodes to a base station simultaneously on at least two different frequencies and that downlink signals can be transmitted from the base station to different nodes on only one frequency that differs from the uplink frequencies.

The *Flach* patent discloses a two-way telemetry system with multiple remote telemeters and a central station. The telemeters communicate via radio frequency with the central station using a two-way TDMA protocol that permits the sharing of time slots (col. 9, lines 9-16). This protocol also uses a contention slot to permit telemeters to transmit service requests to the central station. The telemeters transmit information to the central station (uplink transmission) on the same frequency. On the other hand, control packets sent from the central station to each of the telemeters (downlink transmission) can be transmitted on different frequencies to provide frequency diversity (col. 8, lines 53-56). Applicants note that there is no similar teaching, discussion, or suggestion of frequency diversity pertaining to a telemeter to central station transmission.

The *Flach* patent teaches that the telemeters are mounted on a patient whose location is communicated to the central station through a patient locator (col. 7, lines 45-67). The telemeters (which are located on a single patient) can operate in a frequency hopping mode based on a distance between the telemeter (i.e., patient) and a central station (*Flach*, col. 7, lines 45-65; col. 11 lines 27-57). However, because each telemeter is located on the same patient, the telemeters are arguably at the same approximate distance from the central station. Thus, each telemeter would synchronously hop to the same frequency, where the transmission of data from each telemeter on the selected frequency is determined by the respective time slot of the TDMA protocol (col. 10, lines 56-65). However, even assuming *arguendo* that one of ordinary skill could reasonably interpret that each telemeter on a single

patient could transmit data to the central station on a different frequency, arguably the same frequency would be required to transmit data from the central station to the telemeter. Consequently, this configuration could not meet the feature of claim 1, which recites that the downlink signals are transmitted from the base station to the different nodes on only one frequency, which differs from the uplink frequencies.

The *Flach* patent discloses an embodiment of multiple telemetry systems (i.e., multiple patients with plurality of telemeters) that are placed in a general proximity of one another, such as the same hospital. Each system operates in a frequency hopping mode such that the frequency hopping sequence of each telemetry system (patient) is selected be orthogonal to the frequency sequence of the other telemetry systems (patients) (col. 11, lines 51-57). However, even in this configuration it follows that Applicants' claim 1 feature of the downlink signals being transmitted from the base station to the different nodes on only one frequency, which differs from the uplink frequencies cannot be met. Using the concept described in the *Flach* patent, each patient is arguably be at a different distance from the central station (evidenced from the different frequencies used during the telemeter to central station transmission), thus the central station cannot possibly transmit downlink signals to different nodes on only one frequency that differs from the uplink frequencies as recited in Applicants' claims. Rather, the central station would transmit data to each telemetry system on the same frequency used by each telemeter in the telemetry system. Thus, even this alternative embodiment as described in the *Flach* patent fails to anticipate Applicants claims.

Applicants remind the Examiner that to properly anticipate a claim, the document must disclose, explicitly or implicitly, each and every feature recited in the claim. *See Verdegall Bros. v. Union Oil Co. of Calif.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Withdrawal of this rejection is therefore respectfully requested.

Applicants respectfully submit that added claims 5-9 are distinguishable over the applied art for the additional features recited therein and by virtue of their dependency from claim 1, where applicable. Favorable consideration and allowance of these claims are respectfully requested.

Based on at least the foregoing amendments and remarks, Applicants submit that claims 1-9 are allowable, and this application is in condition for allowance. Accordingly, Applicants request a favorable examination and consideration of the instant application. In the event the instant application can be placed in even better form, Applicants request that the undersigned attorney be contacted at the number below.

Respectfully submitted,

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